

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
15 February 2001 (15.02.2001)

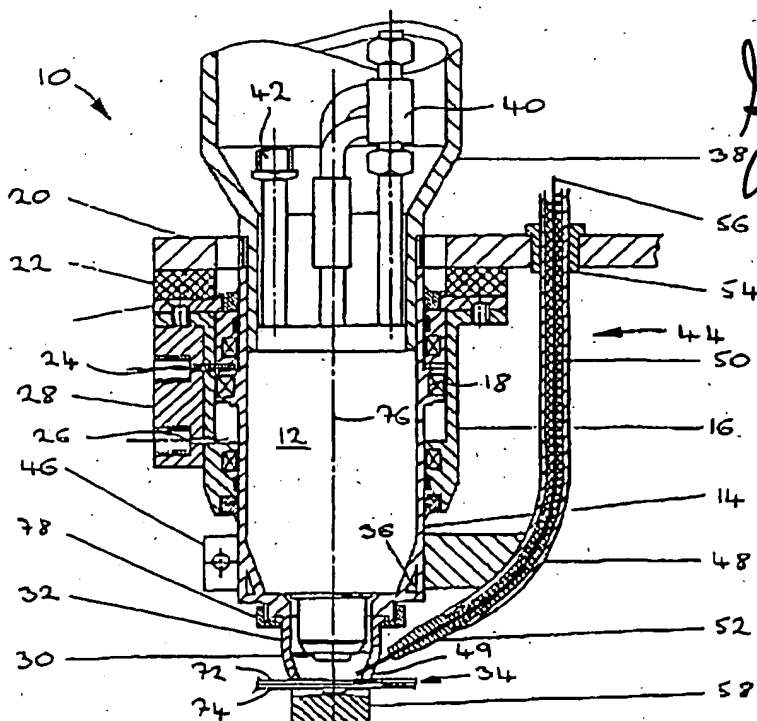
PCT

(10) International Publication Number  
WO 01/10592 A1

- (51) International Patent Classification: B23K 9/23, 10/00, 37/06
- (21) International Application Number: PCT/GB00/02920
- (22) International Filing Date: 28 July 2000 (28.07.2000)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
9918476.4 6 August 1999 (06.08.1999) GB  
9924304.0 15 October 1999 (15.10.1999) GB
- (71) Applicant (for all designated States except US): INTERNATIONAL ALUMINIUM HOLDINGS LIMITED [GB/GB]; Unit 2, Parbrook Close, Torrington Avenue, Coventry CV4 9XY (GB).
- (72) Inventor; and  
(75) Inventor/Applicant (for US only): HUGHES, Russell, Vernon [GB/GB]; 22 Shakleton Road, Earlsdon, Coventry CV5 6HU (GB).
- (74) Agents: CHETTLE, Adrian, John et al.; Withers & Rogers, Goldings House, 2 Hays Lane, London SE1 2HW (GB).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European

[Continued on next page]

(54) Title: WELDING APPARATUS AND METHOD



(57) Abstract: A welding apparatus (10) for welding two or more overlapping members (72, 74) having a tenacious surface oxide layer, the apparatus (10) comprising a plasma arc torch (12) operable to form a weld pool (80) in a work piece (34), and weld pool disturbing means operable, in use, to disturb a weld pool (80) formed by the plasma arc torch (12), the weld pool disturbing means comprising a disturbing member (56) which is movable into the weld pool (80). The apparatus (10) may include a support member (58) adapted to support the weld pool (80).

Sub  
a7

202050-90284001

WO 01/10592 A1